IN THE CLAIMS

The presently pending claims are reproduced below for convenience:

Claim 1 (Currently Amended): An aqueous dispersion of a reactive size which comprises:

a reactive phase comprising one or more diketenes and an anionic dispersant; and

a protective colloid comprising a cationic polymer comprising vinylamine units; ~~as a protective colloid,~~

wherein the protective colloid comprises less than 0.0001% by weight, based on the protective colloid, of the diketenes; and

wherein the anionic dispersant is at least one selected from the group consisting of a condensate of a naphthalenesulfonic acid and formaldehyde; a condensate of a phenol, phenolsulfonic acid and formaldehyde; a condensate of a naphthalenesulfonic acid, formaldehyde and urea; a condensate of a phenol, phenolsulfonic acid, formaldehyde and urea; a ligninsulfonate; a cationic acrylate polymer; and a cationic acrylamide polymer.

Claim 2 (Original): The aqueous dispersion according to claim 1, wherein the protective colloid is substantially free of diketenes.

Claim 3 (Previously Presented): The aqueous dispersion according to claim 1, which comprises less than 1% by weight, based on the aqueous dispersion, of a cationic starch.

Claim 4 (Original): The aqueous dispersion according to claim 3, which is substantially free of cationic starch.

Claim 5 (Previously Presented): The aqueous dispersion according to claim 1, wherein the cationic polymer comprising vinylamine units comprises from 1 to 100 mol% of hydrolyzed homo- or copolymers of N-vinylformamide.

Claim 6 (Previously Presented): The aqueous dispersion according to claim 1, wherein the cationic polymer comprising vinylamine units has an average molecular weight Mw of from 1000 to 2 million.

Claim 7 (Previously Presented): The aqueous dispersion according to claim 1, wherein the content of protective colloid is from 10 to 100% by weight, based on the reactive size.

Claim 8 (Currently Amended): The aqueous dispersion according to claim 1, wherein the ketenes comprise one or more selected from the group consisting of a C_{12}- to C_{22}-alkylketene dimer ~~dimers~~, a C_5- to C_{22}-alkyl-succinic anhydride, ~~or~~ a C_5- to C_{22}-alkenylsuccinic anhydride ~~anhydrides and/or~~ and a C_{12}- to C_{36}-alkyl isocyanate ~~isocyanates are used as reactive sizes~~.

Claim 9 (Currently Amended): The aqueous dispersion according to claim 8, wherein the ketenes are present in an amount of ~~the content of reactive size is~~ from 1 to 50% by weight, based on the total weight of the dispersion.

Claim 10 (Currently Amended): A process for the preparation of an aqueous dispersion according to claim 1, comprising homogenizing the ketenes ~~reactive size~~ and the

cationic polymer comprising vinylamine units in an aqueous mixture in the presence of ~~an~~ the anionic dispersant at from 20 to 100°C under the action of shear forces.

Claim 11 (Previously Presented): A process for engine sizing paper, board and cardboard comprising adding an aqueous dispersion of claim 1 to an aqueous slurry of cellulose fibers and draining the paper stock.

Claim 12 (Previously Presented): A method of using an aqueous dispersion according to claim 1 as an engine size in the production of paper, board, cardboard and liquid packaging cardboard.

Claim 13 (Previously Presented): The aqueous dispersion according to claim 1, wherein the cationic polymer is a hydrolyzed poly-N-vinylformamide polymer having a K value of 75-110 and a degree of hydrolysis of 65-95 mol% of vinylamine units.

Claim 14 (Currently Amended): The aqueous dispersion of claim 13, wherein the ketenes comprise ~~reactive size is~~ stearyldiketene.

Claim 15 (Previously Presented): The aqueous dispersion of claim 14, having a pH of 3.4-3.7.

Claim 16 (Previously Presented): The aqueous dispersion according to claim 14, further comprising calcium carbonate, and a cationic corn starch.

Claim 17 (Previously Presented): The aqueous dispersion according to claim 14, wherein the stearyldiketene is present in an amount of from 1 to 50% by weight.

Claim 18 (New): The aqueous dispersion according to claim 1, wherein the anionic dispersant is at least one selected from the group consisting of a condensate of a naphthalenesulfonic acid and formaldehyde; a condensate of a phenol, phenolsulfonic acid and formaldehyde; a condensate of a naphthalenesulfonic acid, formaldehyde and urea; and a condensate of a phenol, phenolsulfonic acid, formaldehyde and urea.

Claim 19 (New): A non-cellulose aqueous dispersion of a reactive size which comprises:

a reactive phase comprising one or more diketenes and an anionic dispersant; and

a protective colloid comprising a cationic polymer comprising vinylamine units;

wherein the protective colloid comprises less than 0.0001% by weight, based on the protective colloid, of the diketenes.

Claim 20 (New): The non-cellulose aqueous dispersion of Claim 19, wherein the anionic dispersant is at least one selected from the group consisting of a condensate of a naphthalenesulfonic acid and formaldehyde; a condensate of a phenol, phenolsulfonic acid and formaldehyde; a condensate of a naphthalenesulfonic acid, formaldehyde and urea; a condensate of a phenol, phenolsulfonic acid, formaldehyde and urea; a ligninsulfonate; a cationic acrylate polymer; and a cationic acrylamide polymer.

Claim 21 (New): The aqueous dispersion according to claim 19, wherein the protective colloid is free of diketenes.

Claim 22 (New): The aqueous dispersion according to claim 19, which is free of cationic starch.

Claim 23 (New): The aqueous dispersion according to claim 19, wherein the cationic polymer comprising vinylamine units comprises from 1 to 100 mol% of hydrolyzed homo- or copolymers of N-vinylformamide.

Claim 24 (New): The aqueous dispersion according to claim 19, wherein the cationic polymer comprising vinylamine units has an average molecular weight Mw of from 1000 to 2 million.

Claim 25 (New): The aqueous dispersion according to claim 19, wherein the content of protective colloid is from 10 to 100% by weight, based on the reactive size.

Claim 26 (New): The aqueous dispersion according to claim 19, wherein the ketenes comprise one or more selected from the group consisting of a C_{12}- to C_{22}-alkylketene dimer, a C_5- to C_{22}-alkyl-succinic anhydride, a C_5- to C_{22}-alkenylsuccinic anhydride and a C_{12}- to C_{36}-alkyl isocyanate.

Claim 27 (New): The aqueous dispersion according to claim 19, wherein the ketenes are present in an amount of from 1 to 50% by weight, based on the total weight of the dispersion.

Claim 28 (New): The aqueous dispersion of claim 19, wherein the ketenes comprise stearyldiketene.

Claim 29 (New): The non-cellulose aqueous dispersion of Claim 19, wherein the anionic dispersant is at least one selected from the group consisting of a condensate of a naphthalenesulfonic acid and formaldehyde; a condensate of a phenol, phenolsulfonic acid and formaldehyde; a condensate of a naphthalenesulfonic acid, formaldehyde and urea; and a condensate of a phenol, phenolsulfonic acid, formaldehyde and urea.